# (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

#### (19) World Intellectual Property Organization International Bureau



# 

#### (43) International Publication Date 10 February 2005 (10.02.2005)

### PCT

### (10) International Publication Number WO 2005/011390 A1

(51) International Patent Classification7:

A23B 7/00

(21) International Application Number:

PCT/IL2004/000713

(22) International Filing Date: 3 August 2004 (03.08.2004)

(25) Filing Language:

**English** 

(26) Publication Language:

English

(30) Priority Data: 157234

4 August 2003 (04.08.2003) IL

(71) Applicant (for all designated States except US): RAD NATURAL TECHNOLOGIES LTD. [IL/IL]; 6 Ravnitzki Street, Segula Industrial Area, 49277 Petach Tikva (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): REZNIK, Rina [IL/IL]; 36 Szold Street, 43219 Ra'anana (IL). HER-SKOWITZ, Borts [IL/IL]; 2A/2 Jabotinski Street, 22380 Nahariya (TL).

(74) Agent: JEREMY M. BEN-DAVID & CO. LTD.; P.O.

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DB, DK, DM, DZ, BC, EB, EG, BS, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SB, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KB, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IB, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BP, BJ, CP, CG, CL, CM, GA, GN, GQ, GW, ML, MR, NB, SN, TD, TG).

#### Published:

with international search report

before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guid-

(34) Title: COMPOSITIONS AND METHODS FOR IMPROVING THE EFFICIENCY OF PRESERVATIVES IN FOODS

(57) Abstract: The invention relates to a composition which comprises component (1) and at least one of components (2), (3) and (4): (1) a completely water-soluble antioxidant which is a Labiatae tissue extract containing sodium rosmarinate; (2) ascorbic acid, is consecutive acid and (or) their non-toxic water-soluble salts in a weight ratio to sodium rosmarinate of 1.5:1 to 90:1: (3) citric acid, its (4): (1) a completely water-soluble antioxidant which is a Labiatae tissue extract containing sodium resmarinate; (2) ascorbic acid, isoascorbic acid and (or) their non-toxic water-soluble salts in a weight ratio to sodium rosmarinate of 1.5:1 to 90:1; (3) citric acid, its non-toxic salts, and (or) non-toxic water soluble salts of acetic and (or) lactic acids; (4) at least one non-toxic salt of propionic acid. Embodiments of such compositions are useful for enhancing the antioxidative protection afforded to meat products, or to edible oils or fats (or foodstuffs containing them), and for enhancing inhibition of microbial deterioration in foodstuffs provided by the acids and salts specified in ingredients (3) and (4).